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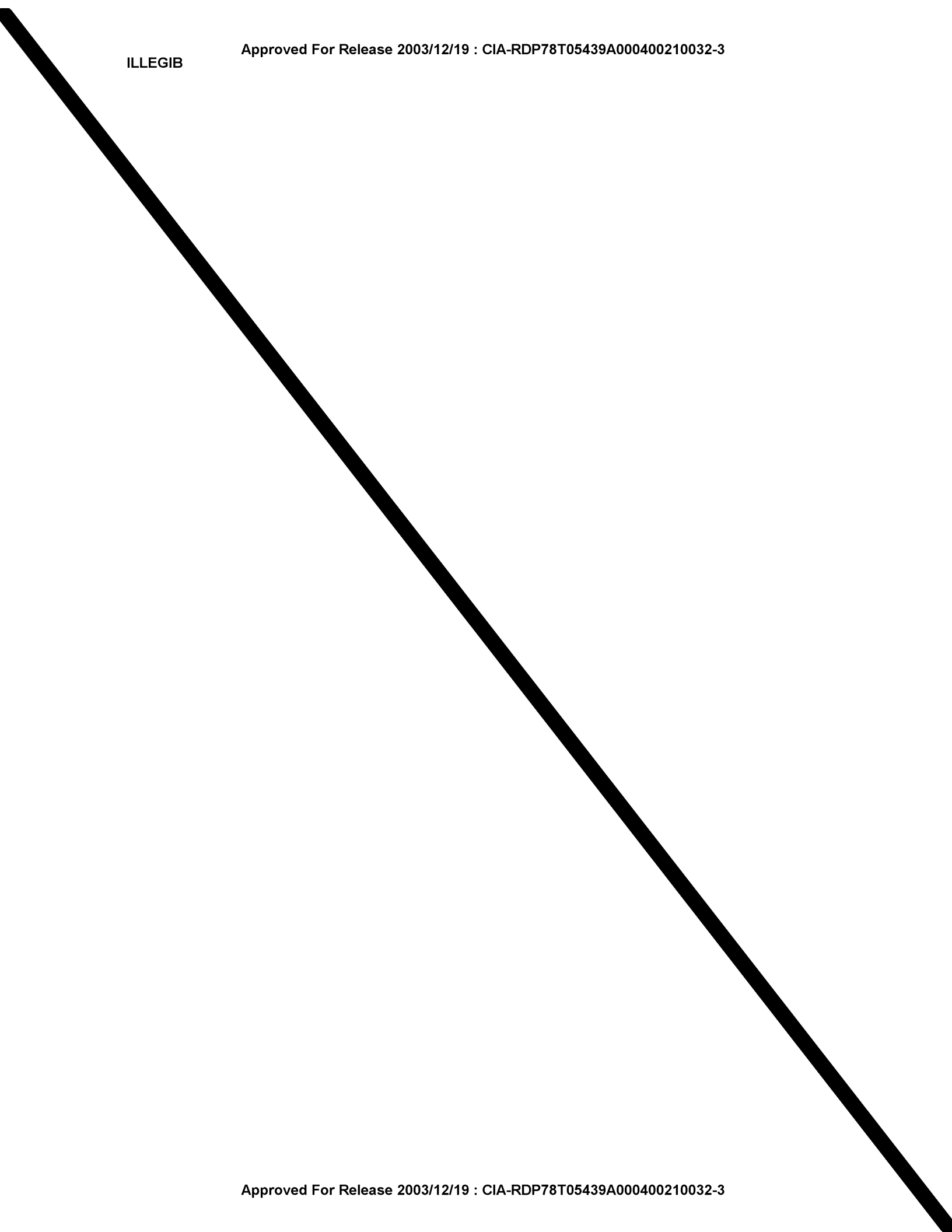

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DEFENSE INTELLIGENCE AGENCY

(C) CHINESE COMMUNIST MILITARY LOGISTICS AND CAPABILITIES

TAB B- CHINESE COMMUNIST CAPABILITIES TO ATTACK INDIA THRU BURMA

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CHINESE COMMUNIST MILITARY LOGISTICS AND CAPABILITIES

TAB "B"

CHINESE COMMUNIST CAPABILITIES TO ATTACK INDIA THROUGH BURMA

INDEX

*Gazetteer at Appendix F is a draft which will be replaced by a revised list of place names and locations in final report.

ANNEXES - Data used as a basis to calculations:

Annex IA	Personnel and Material, Infantry Division (Standard), CCA
Annex IB	Personnel and Materiel, Infantry Division (Light), CCA
Annex IC	Personnel and Materiel, Infantry Regiment (Standard and Light), CCA
Annex ID	Personnel and Equipment, BD/MIS Division, PLA
Annex IIA	Average Daily Resupply Requirements for Selected CCA Units
Annex IIB	Daily Ammunition Requirements of Selected CCA Units

I. STATEMENT OF THE PROBLEM

To determine the maximum forces which the Chinese Communists can logistically support in a sustained attack on India through Burma from bases in China and the favorable areas and timing of such an attack.

II. SUMMARY OF STUDY AND CONCLUSIONS

a. Assuming a one-year stockpiling program prior to the attack and no interdiction of supply lines, the Chinese could deploy and support a maximum of six divisions and eight regiments in the India-Burma border area in the dry season, (November through March) after road improvements considered to be within their capabilities, on the Imphal* and Ledo MSRs. Including security forces and support troops in Burma, the total force operating outside China would number approximately 118,000 men.

b. In the wet season, from mid-May through September, the total force would be substantially reduced. The Chinese could support attacks into India along the Imphal route by troops approximating one division and one regiment, about 17,000 men. They could support no more than a token screening force on the Ledo MSR during this period. (Sections V, VI, and VIII).

c. The Engineering Problem. Neither the Burma Road branch to Imphal nor the Ledo Road is now capable of sustaining military traffic. Since we have assumed that the Chinese Communists are prepared to violate the Burmese border and that Burmese resistance would be a negligible factor, Chinese Communist Army Engineers and covering forces could move into Burma at the end of the rainy season in late September or early October. By using three engineer regiments and four battalions on the Imphal route and approximately a regiment and four battalions on the Ledo route, we consider that the necessary

*See Gazetteer, Appendix F, and Map 3 for place names and locations.

engineering improvements could be effected before the end of October. (Section VII).

2. Air Capabilities

The Chinese could deploy a total of 240 aircraft to forward airfields in China and Burma, consisting of 150 jet fighters, 50 jet light bombers, and 40 light propeller bombers. Operating beyond fighter cover, the Chinese could use their 15 TU-4 prop medium bombers to bomb Indian cities. (Section IX).

3. Military Situation (Jan 1964)

Chinese in South China

a. Ground Order of Battle

Chinese Communist Army forces in the K'un-ming Military Region, which adjoins Burma, consist of two armies, an independent infantry division, a field artillery division, seven border defense regiments, and other units. The overall combat and combat support troop strength of the military region is about 127, 000 men. A major attack on India through Burma would require the redeployment of additional troops. (Section VIII). Since we have assumed that the Chinese will not initiate simultaneous attacks on countries on her periphery other than India, they could effect the necessary redeployments without jeopardy to their overall military posture.

b. Logistic Situation

K'un-ming, the logistic base for any Chinese Communist attack through Burma, is currently isolated from the Chinese standard-gauge system which forms a skeletal network over the eastern and northern portions of the country. The Chinese are building a vital link in their rail system which will connect K'un-ming to the standard gauge net, but it is estimated that this link (An-shun to Chan-i) will not be

completed until early 1966 with optimum conditions for progress. Daily supply to K'un-ming by road and rail now approximates 2,800 short tons, which is probably barely sufficient for the light industry and mining economy and current military needs. (Section V). Although the present military supply installations are undoubtedly adequate for current military requirements, intelligence gaps, including the present state of photographic interpretation and analysis, have not provided proof of this. We conclude that the present capacity for movement of supplies to K'un-ming Military Region from elsewhere in China is inadequate to support a sustained attack on India through Burma. Several years of stockpiling would probably be necessary to attain the required support level. Aerial photography, communications intelligence, and collateral intelligence examined to date have not revealed major stockpiles.

4. Vulnerability to Interdiction (Section X).

a. Transportation

The only present Chinese Communist railway in the area, the meter-gauge line through North Vietnam, is vulnerable to interdiction. Roads, particularly those forward into Burma, are likewise particularly vulnerable, mainly because of the many bridges and constricted defiles crossed. Because of the generally north-south river flow and the east-west direction of potential force movement, the major rivers (Mekong, Salween, and Irrawaddy) form excellent potential interdiction points.

b. Logistic installations and communications

There are few known POL storage facilities in K'un-ming Military Region, and there are no major refineries nearby. Military and civil communications centers serving the area cluster mainly in four centers. The main depot complex in the area is at K'un-ming. Serious damage to these centers and other lesser facilities in the area would

seriously impair any Chinese operation through Burma.

5. Intelligence Gaps

Our holdings in this area are generally better than in the Tibetan area, but gaps remain in the transportation, logistical support, and military communications fields. Ground order of battle and air force intelligence vary from fair to good. (Section XI). Continued exploitation of photography will improve the reliability and scope of intelligence used in the preparation of this paper. We rate the overall intelligence base for this study as fair.

III. FACTS BEARING ON THE PROBLEM

1. There are only two through routes by which the Chinese can move through Burma to attack India.

a. K'un-ming Gauhati/Tezpur via Mandalay and Imphal

b. K'un-ming Dibrugarh via Myitkyina and Ledo

2. In addition there are networks of trails along which the Chinese could move units supported by pack animals and porters to attack India.

3. The capability described in this study is based on the logistic ability of the Chinese to support from bases in the K'un-ming area, attacks over the existing routes through Burma into India; allowing for such improvements as the Chinese could be expected to accomplish.

4. "Optimum"* and "minimum"* road capacities adjusted for climatic conditions as well as all available information on the availability of supplies, transport, air order of battle and air facilities have been used to determine logistic capability.

5. Detailed interpretation and analysis of all the air photography of Chinese military installations in the K'un-ming area are incomplete at the time of writing. Thus this assessment will be subject to revision at a later date.

6. Tonnages are expressed in short tons.

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*"Optimum" road capacities are those calculated from the Agreed US [redacted] road methodology for normal usage in fair weather over a long period.
*"Minimum" road capacities are calculated from the methodology using figures for wet base and sub-base.

IV. ASSUMPTIONS

1. A Chinese attack on India through Burma will be coordinated with a general attack across the Himalayas and will not take place in isolation.

2. China is prepared to violate the Sino-Burmese Boundary Treaty and other treaties in the event that right of passage cannot be obtained.

3. Burmese military resistance to a large-scale Chinese Communist military incursion will be negligible and will be swept aside.

4. The Chinese Communists will not have established secret military stockpiles in Burma prior to the operations.

5. The Chinese Communists will attack simultaneously over the through and non-through routes from Burma into India

6. Necessary Chinese Communist forces will be stationed in Burma ready to protect the lines of communications (LOC) and to repel any counter move by Burmese Forces.

7. The Chinese Communist Army (CCA) can train and equip sufficient forces to provide the maximum number of troops that could be supported over the indicated routes.

8. The Chinese Communist Air Force (CCAF) will require some airfields in Burma in order to provide air support for the CCA.

9. Porters and animals are available in adequate supply both in China and in Burma.

10. The amount of supply required for forces engaged in the attack will be based on the "Moderate Combat"* rate, those on LOC duty on light combat rates.

*See Annex IIB

V. CHINESE CAPABILITY TO SUPPLY KUNMING FROM CENTRAL CHINA

1. General

a. K'un ming is isolated from the main Chinese standard gauge railway network. All rail supply must come from Nan-ning in Kwangsi Region, be transhipped onto the North Vietnamese narrow gauge railway and then go via Hanoi to Kunming.

b. The nearest connection to the main Chinese standard gauge system is the rail head at An-shun in Kweichow Province. From here materiel must be trucked to Chan-i which is today the rail head of the line from K'un-ming.

c. The Chinese have recently converted the K'un ming-Chan-i line from narrow to standard gauge and are constructing a line to connect Chan-i to An-shun. Photography shows this work has the highest priority of any current rail expansion in China. Completion of the connecting link is expected by 1966.

d. It is possible that the Chan-i-K'un-ming line is only used for local traffic. However, the restricting factor to the tonnage it could deliver to K'un-ming is the road link from An-shun to Chan-i which has a capacity of 930 - 800 short tons per day.

2. Rail

The maximum rail tonnage available at K'un-ming amounts to:

1500 short tons per day from Hanoi

930 - 800 short tons per day from Chan-i

3. Road

Road tonnage available to the K'un-ming area is:

930 - 800 short tons per day from An shun (if not sent by rail)

200 - 320 short tons per day from Ch'eng-tu

4. The total tonnage available to the K'un-ming area is, therefore, between 2330 and 2320 short tons per day.

5. Availability of Rolling Stock Road Transport and POL

a. Rolling stock

An exact count of locomotives and freight cars for the narrow gauge lines serving K'un ming is not available. It has been estimated that there are 200 steam locomotives and 2,000 freight cars available which would be sufficient to operate all sections to capacity.

b. Vehicles

Information on the numbers and types of vehicles available in Yunnan is incomplete. An October 1962 collateral report indicated that the state controlled communications office in K'un-ming, a provincial body, operated a fleet of about 10,000 vehicles, most of which are probably three ton trucks serving both military and civil requirements. No valid estimate can be made on the adequacy of this fleet to deliver and distribute the civil and military requirements of the province

c. POL

Information on POL storage facilities in the K'un-ming area is incomplete. There is no pipeline from a refinery to the area. The bulk of POL supplies for K un-ming come from the refineries at Shanghai and Lan-chou via Hanoi, though a small amount may be trucked from Ch'eng-tu to K'un-ming via Chen-nan.

Tank storage facilities in K un-ming, so far identified, have a capacity of 12,000 metric tons (3.9 million gallons of POL). Additional tank storage exists but its capacity is not yet known.

6. Depots

a. Detailed interpretation and analysis of photography is incomplete on this area. Only the following major logistic installations have been identified so far:

(1) K un-ming

The K'un ming area contains a complex of logistic installations including a large ground and air general supply depot occupying more than 300 acres. This is almost certainly the central depot for the whole of K'un-ming Military Region.

(2) Hsia kuan

This area contains the permanent barracks of the 42nd Infantry Division and what are probably the logistic installations of the 14th Army. So far identified are a large vehicle workshop and two major storage areas with a total floor space of 881,000 square feet. In all probability this depot supplies all the units presently situated west of Hai-kuan near the Sino-Burmese border.

VI ROUTES FROM CHINA TO INDIA THROUGH BURMA

1. General

a. It must be assumed that in preparation for an attack on India through Burma the Chinese would first improve the roads from Hsin-chieh west to the frontier. It has already been assumed that the Chinese would stockpile military materiel at the depots at K un ming, Hsia-kuan and further west in open storage, perhaps in the Hsin-chieh area.

b. From these areas there are only two through routes from China to India via Burma.

(1) Teng-chung - Bhamo - Myitkyina and Teng-chung-Myitkyina to Ledo and Dibrugarh (the Stilwell Road).

(2) Hsin-chieh - Wanting - Lashio - Mandalay - Shwebo - Ye-u-Kalewa - Tamu - Imphal to Kohima and Gauhati

c. An additional route from Meng-hun goes to Mandalay via Keng-tung and Meiktila. Because of the low capacity of the section in Burma between the frontier and Keng-tung (100 short tons) and because of its great length (530 miles from the frontier to Mandalay) it is not a practical attack route into India. This route will not be considered in the capability aspect of this study.

d. There is an unimproved track from Bhamo to Homalin near the Indo-Burmese frontier. From Homalin pack animal and porter supported units could operate approximately 30 miles into India, or deeper if air supply was available.

e. An additional road goes from Myitkyina to Putao (Ft. Hertz). Although this road has reasonable capacities (370 - 190 short tons) the foot track distance from Ke road head at Putao to the Indian frontier (5 days march) makes it of little value as an attack route other than to tie down Indian forces on the frontier.

f. A trail from Kung-shan in the northwestern corner of Yunnan Province leads across northern Burma entering India at the Diphu pass. This trail has local tactical merit for outflanking Indian defenses at Walong in the event of an attack from Li-ma.

g. There are certainly other trails of which we have no intelligence, leading off both from the Ledo and the Imphal route towards the frontier. These could also be used by the Chinese.

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h. The likelihood of the Chinese using local roads and trails on the Indo-Burmese frontier for pack animal and porter supported units will be determined by the Chinese aims. We consider it unrealistic to expect the Chinese to fight a protracted war in the jungle in the Indo Burmese frontier areas. Chinese objectives would almost certainly be in the Brahmaputua Valley in India. The extent that trails leading to remote frontier areas would be exploited would probably be limited to tying down Indian forces in remote areas thus assisting the main attacks on the through routes. For this reason the only lesser routes considered are those from Homalin and Putao

2. Obstacles

a. Rivers are a serious obstacle to movement through Burma, and existing bridges and ferry capacities govern tonnage delivery on most routes.

b. Before either through route could be used for sustained military traffic considerable engineer effort would be necessary in initial route construction and bridging (See Section VII).

3. Individual Routes in China

a. Kuang-tung to Yun-nan-i

(1) The road from the railhead at Kuang-tung westward to Yun-nan-i supports both the Imphal and the Ledo attack routes into India. Its present capacity ranges from 850 to 7[illegible] short tons per day. This limitation could be overcome to a great extent both by forward stockpiling and by what road improvements the Chinese could improve the capacity of this section of the road to equal the rail input at Kuang-tung (1800 short tons). This would then allow approximately 1650 short tons for distribution between the Yun-nan i - Meng-ting route to Mandalay and the Yun-nan-i - Hsin-chieh route to Myitkyina.

(2) The road from Kuang-tung to Yun-nan-i thus becomes the limiting factor to Chinese capability for sustained operations in Burma or India. This bottle-neck will persist until the rail link from An-shun to Chan-i has been completed, and the line from K un ming to the west has been extended to at least Ta-li.

b. Teng-chung to Myitkyina (Teng-chung cutoff)

(1) This road is today little more than a jeep track. It crosses extremely mountainous terrain, and on the Burmese side of the frontier descends the escarpment to the Irrawady Plain. Though it is probable that within the time frame

of this study, the Chinese could improve the part of this road within China, it is most unlikely that they could develop the Burmese section after the attack began, to more than [illegible] ton capacity. Hence the major part of supply to Myitkyina would have to be sent via Bhamo.

Individual Routes in Burma

a. The Imphal Route

(1) Supply at Mandalay

The tonnage available to the Imphal route being derived from the same depots as the Ledo route will vary according to the priority given it. The maximum tonnage available at Mandalay would be between 1170 and 930 short tons if given all the tonnage available from both the Meng-ting - Hsenwi and the Wan-ting - Hsenwi roads.

(2) Mandalay - Tamu

The limiting section to this road occurs between Ye-U and Shwegyin where the road has deteriorated into a bad jeep track often impassable during the monsoon. Much of the old road bed remains and with road and bridge improvements this road has a potential capacity of between 620 and 370 short tons per day. (See Engineer Tasks Section VII). The 6 mile ferry between Shwegyin and Kalewa is an obstacle which we believe Chinese ingenuity could overcome with comandeered river craft and impressed labor.

(3) Mandalay - Gangau - Kan - Kalemyo

This route is not considered a practical attack route because latest reports say the section between Kan and Kalemyo is impassable. The World War II road, which was never good, has disintegrated. There are a great number of bridges out and the Myittha River must be crossed twice (1 800 and 780 feet gaps). Traffic from Mandalay for Kalewa is today sent up river from Monywa to Kalewa.

b. The Ledo Route

(1) Supply at Myitkyina

The tonnage available at Myitkyina for the Ledo route, being derived from the same depots as the Imphal route will vary according to the priority given it. At maximum the tonnage available at Myitkyina would be between 770 and 460 short tons per day if given all the tonnage available from the "Teng Chung Cut Off" and from the Teng Chung-Bhamo and Wanting-Bhamo routes.

(3) Irrawady Ferry at Myitkyina

This ferry is a bottleneck, but we do not believe it would impede the Chinese who could tranship all the tonnage delievered to the site by commandeering river craft and impressing labor.

(4) Myitkyina - Pangsan Pass

The restricting section of this route occurs between Shiungbwiyang and the Pangsau Pass where the old Stilwell Road has been neglected, and is cut in several places by landslides and waterfalls. Many bridges are out, and some sections can only be traversed by jeeps with difficulty. The existing road bed, when repaired, has a potential capacity of between 330 and 110 short tons per day.

(5) Pangsau Pass to Ledo

Reports conflict on the state of this road. An Indian Army detachment mans a checkpoint at the rest house at the Frontier. Three ton trucks could recently use the road to the checkpoint. Its capacity may be greater than the [illegible] short tons per day shown on Map [illegible].

(6) Myiktyina to Putao

This route is reported to be in fair condition.

d. Bhamo to Homalin

This route deteriorates into a jeep track north of Indaw. It is probable that using jeeps, animal transport and porters the Chinese Communists could deliver in excess of [illegible] short tons a day to Homalin and up to 50 short tons a day to the Indian frontier.

e. Kung shan to Diphu Pass

Little is known of this route. However, it is estimated that using pack animals and porters the Chinese Communists could deliver 50 short tons per day to the Diphu Pass.

3. Burmese Railways and Inland Waterways

Since the Burmese railways and inland waterways do not connect with the Chinese systems, they would not increase the tonnage available to the Chinese forces attacking India. Tehy would be useful, however, for distributing supplies to the Chinese internal security forces in Burma.

VII THE ENGINEER PROBLEM

1. General

a. The principal task for Chinese army engineers would be to open and then maintain the supply and attack routes leading from China to India via Burma.

b. Initially this would involve road repairs and reconstruction, and bridging and bridge repairs to bring the routes up to the potential capacities shown in Appendix B.

c. Once the routes were opened to sustained military traffic considerable effort would be required to maintain the roads, bridges and ferries, and make any necessary improvements before the start of the next monsoon.

d. The problem of keeping the routes open during the monsoon will be very great. However, it would be possible for the Chinese to reduce wear and tear on the weaker sections of roads by mobilizing large porter gangs.

e. It has been assumed that for engineer work the Chinese would conscript labor forces at the approximate ratio of 100 civilians per soldier.

2. The Initial Engineer Task

a. The Imphal Route

(1) Frontier to Mandalay

This route is now open to through traffic. Maintenance requirements would be heaviest on the section from the frontier to Hsenwi. This would require:

One engineer battalion

(2) Mandalay-Shwebo-Ye-U-Shwegyin

The worst section of this route, from Ye-U to Shwegyin, has deteriorated into a bad jeep track. There are some 51 bridges to repair or rebuild, and 40 fords to maintain. It is estimated this would require:

One engineer battalion for 30 days road repairs

One engineer battalion for 42 days bridges and fords

(3) The Shwegyin - Kalewa Ferry

This six mile ferry presents a serious bottleneck. We believe that by commandeering additional river craft for the long haul, and by using local boats for direct crossings with porter gangs carrying supplies between the two road heads the Chinese could transship up to a maximum of 700 short tons per day, to equal the capacity delivered by road. Ferrying would require:

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One engineer battalion

(2) Katawa to Tamu

This mountainous section of road requires extensive repairs. There are approximately [illegible] bridges to repair or rebuild. This would require:

One engineer battalion 45 days road repairs

One engineer battalion 85 days-bridges

b. The Ledo Route

(1) Border west of T'eng-ch'ung to Myitkyina

This section is in poor condition and crosses very difficult terrain. It is little better than a jeep track. Initial work to develop its capacity to 50 short tons per day would require:

One engineer battalion 10 days

(2) Border Southwest of T'eng-ch'ung to Bhamo and Myitkyina

This route is in good condition. Heaviest maintenance would be required on the section from the border to Bhamo. The engineer commitment would be:

One engineer battalion

(3) Irrawaddy Ferry at Myitkyina

The river is 1200 feet wide at the ferry site. The existing ferries have a capacity of approximately 300 short tons per 24 hours. To ferry the maximum tonnage delivered by road (770 short tons) the Chinese would need to build additional ferries or commandeer other river craft. This would require:

Two engineer platoons for construction and operation

(4) Myitkyina to Pangsau Pass

The section of the road between Shingbwiyang and Pangsa Pass has deteriorated into a jeep track. This section has a potential capacity of 550 short tons per day. Over this whole route there are more than 70 bridges in need of replacement or repair and two major fords. The route would require:

One engineer battalion 28 days - road work

One engineer battalion 41 days - bridges

3. Initial Engineer Force Requirement

In order to complete the work detailed above by late October we estimate the Chinese would deploy the following troops:

a. Imphal Route

(1)	Border to Mandalay	One engineer battalion
(2)	Mandalay to Ye U	Two engineer battalions
(3)	Ye U to Shwegyin	One engineer battalion
(4)	Shwegyin Kalewa Ferry	One engineer battalion
(5)	Kalewa Tamu	Two engineer regiments

Total three regiments and four battalions

b. Ledo Route

(1)	Teng Chung Myitkyina	One engineer battalion
(2)	Border-Bhamo-Myitkyina	One engineer battalion
(3)	Myitkyina Ferry	One engineer battalion
(4)	Myitkyina Pangsau Pass	One engineer regiment and two engineer battalions

Total one regiment, four battalions and one company

4. Maintenance

We estimate that the forces shown in the preceeding paragraph would be adequate to maintain the routes and make any necessary improvements required to withstand the following monsoon.

5. Monsoon Season

To keep the MSRs and attack routes open during the monsoon at the lower capacities shown in Appendix "B" would require the following additional engineer forces:

a.	Kalemyo-Tamu	One engineer regiment
b	Teng Chung-Myitkyina	One engineer battalion
c.	Myitkyina-Pangsau Pass	One engineer regiment

6. Total Force Requirements

a. Initial Requirement

engineer regiments - 4
engineer battalions - 8
engineer companies - one

b. Monsoon Requirement

engineer regiments - 6
engineer battalions - 9
engineer companies - one

VIII CHINESE COMMUNIST CAPABILITIES FOR AN ATTACK ON INDIA THROUGH BURMA

1 General

In order to determine the timing and maximum capability of the Chinese to attack Inida through Burma it is necessary to consider:

a. Chinese objectives in India, in order to determine the routes they might use.

b. The tonnage available on attack routes to determine the size of forces that could be supported in the different seasons.

c. The time required to open the attack routes for sustained military traffic to determine when an attack could be made in strength.

d. Maximum force requirements for:

(1) Engineer forces in Burma

(2) Covering forces required whilst the routes are being improved.

(3) Transport and administrative forces on MSRs and attack routes.

(4) Internal security forces in Burma

(5) Attack forces

e Minimum force requirements for:

(1) Defense of SW China

(2) Internal Security in SW China

(3) Theater reserve forces

f. The strength of ground forces in K'un-ming Military Region to determine the reinforcement requirement to meet commitments in paragraph 1.d. and e. above.

g. Supply support to the Chinese Communist Air Forces (CCAF) within Burma.

h. The length of time operations can be sustained as a result of stock-piling.

2. Chinese Communist Aims and Objectives in India

It is estimated that the objective of a Chinese Communist attack on India through Burma would be to seize and hold Eastern Assam by a coordinated attack from Tibet and through Burma. The probable military objectives for the attack through Burma to attain this aim would be:

a. To link up with forces attacking from Tibet in the Gauhati area.

b. To relieve pressure on forces attacking in the Li-ma area by cutting Indian communications in the Digboi/Dibrugarh area.

c. To assist forces attacking in the Li-ma area by an attack through the Diphu Pass.

d. To clear the area between the main axes of advance to Gauhati and Dibrugarh by moving additional forces into India by trail supported by pack animal and porter.

3. Tonnage Available on Attack Routes

a. From the intelligence available it appears that at present neither of the through routes (via Ledo and Imphal) are capable of sustained traffic. Much of the tonnage available on these routes prior to bridge and road construction will be required for the engineer effort. It is estimated that not more than 50 tons would be available to covering troops at the Tamu, Homalin, Pangsau Pass and Diphu Pass, until the roads were opened to sustained traffic.

(1) From Appendix "B" it will be seen that the following road capacities would be available after road and bridge repairs were completed:

(a)	(b)	(c)
	Mid May-Sep Short tons per day	Oct-Mid May Short tons per day
(1) Tamu	350	590
(2) Homalin	30	50
(3) Pangsau Pass	110	530
(4) Dibrugarh	190	380
(5) Diphu Pass	30	50

4. Timing

a. Having assumed that the attack on India through Burma would be coordinated with an attack through the Himalayas, it would be necessary for CCA engineers to start work at the end of the monsoon in early October so that road and bridge work would be completed by the end of October. Late October is then the earliest date a major concentration in the frontier areas could start.

b. Initial deployment of engineers, covering and internal security forces would have to begin in early September in order to allow the engineers to be in position to start work in early October.

5. Maximum Force Requirements

a. Engineer Forces in Burma

(1) At Section VII paragraph 3 it was estimated that the initial engineer requirement would be as shown below daily resupply requirements for engineers are also shown

Imphal Route	3 regiments	33	short tons per day
	4 battalions	13	short tons per day
Ledo Route	one regiment	11	short tons per day
	4 battalions	13	short tons per day
	one company	1	short ton per day

(2) If the engineer forces shown above were deployed the initial engineer task would probably be completed in 20 days.

b. Covering Forces

It is estimated that in order to give protection to the engineer forces employed on initial road work and to prevent Indian interference, the Chinese would require the following covering forces to move into Burma at the same time as the engineers These covering forces would later become part of the attacking forces.

(1) Area	(2) Units	(3) Daily Re-Supply Requirement (Short tons)
(a) Imphal Route	Two Light Infantry regiments	34
(b) Homalin	One Light Infantry regiment	17
(c) Ledo Route	Two Light Infantry regiments	34
(d) Diphu Pass	One Light Infantry regiment	17

c. Transport and Administrative Forces

It is estimated that the Chinese would require the following transport and administrative forces in Burma

(1) Troops	(2) Daily Re-supply Requirements (Short tons)
(a) 12 Motor Transport Regiments	48*
(b) 500 Administrative troops @50 men per 100 miles)	1

*This does not include POL requirement for MT Regiments which has been allowed for in the road capacity calculations (See Appendix "B"

d. Internal Security Forces in Burma

It is estimated that the Chinese would require not less than the following internal Security forces in Burma.

(1) Area	(2) Troops	(3) Daily Re-supply Requirements (Short tons)
(a) Hsenwi-Mandalay-Kalewa	2 indep infantry regiments	34
(b) Bhamo-Myiktyina-Shingbwiyang	2 indep infantry regiments	34

e. Attack Forces

(1) The following table shows the tonnage available to attack forces on through routes at the best and worst seasons of the year at the Indo-Burmese frontier

(1) Route	(2) Engr Internal Security MSR troops and CCAF Requirement (1)	(3) Tonnage Required for troops in Col (2)	(4) Tonnage delivered at Indo/Burmese frontier		(5) Tonnage available to attack forces (rounded)	
			Dry Season	Monsoon	Dry Season	Monsoon
(a) Imphal Route	Engrs	46				
	6 MT Regts	24				
	2 Inf Regts	34				
	MSR trps	.5				
	CCAF	29	(2)			
	Total	133.5	590	350	460	220
(b) Ledo Route	Engrs	25				
	6 MT Regts	24				
	2 Inf Regts	34				
	MSR Trps	.5				
	CCAF	29				
	Total	112.5	530	110	420	nil

Notes: (1) See Section IX para 3.d. Half the road tonnage required for airfields in Burma has been allotted to each route.

(2) See Appendix "B", footnote 3.

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(2) From the preceeding subparagraph it would appear that during the monsoon season the Chinese would be unable to support attack forces on the Ledo route without cutting all engineer, internal security and MSR troops. To do so would entail an internal security risk in the rear areas and break up of the Ledo road. To overcome this the Chinese might try to obtain supply from the Li-ma area, but it is very doubtful if this would be adequate for the size of force they could deploy during the initial attack in the dry season.

(3) With the tonnages shown in para 5.e. the Chinese could support the following attack forces on the Indo-Burmese Frontier.

(1)	(2)	(3)	(4)	(5)
Route	Strength Oct-Mid-May	Tons per Day	Strength Mid-May-Sep	Tons per Day
(a) Imphal Route	Army Hq	22	Army Hq	22
	Army Arty Regt	49	Army Arty Regt	49
	Engr Regt	12	Engr Regt	12
	2 Lt Inf Divs	224	1 Lt Inf Div	112
	1 Std Inf Div	159	One Inf Regt	27
	Total	466	Total	222
(b) Homalin	Two Inf Regts	54	Two Inf Regts	54
(c) Ledo Route	Army Hq	22		
	Army Arty Regt	49		
	Engr Regt	12		
	3 Lt Divs	366	Nil	Nil
	Total	419	Nil	Nil
(d) Diphur Pass	2 Inf Regts	54	Two Inf Regts	54

6 Minimum Force Requirements

a. Defense of SW China

It is estimated that the Chinese would continue to require two armies in K'un-ming Military Region for the defense of that area.

b. Internal Security in SW China

It is estimated that the Border Defense regiments presently in SW China would be adequate for initial security requirements.

c. Theater Reserve Forces

It is estimated that those forces held for the defense of SW China would also be available as theater reserves and if committed would be replaced by armies presently in Central China.

7. Force and Reinforcement Requirements

From the following table it would appear that after meeting requirements for Theater Reserve Internal Security Administrative and Transportation Forces, it would, for an attack in maximum strength, be necessary to reinforce K'un-ming Military Region by:

Army Headquarters	2
Army Artillery Regiments	1
Standard Infantry Division	1
Light Infantry Divisions	4
Independent Infantry Regiments	8
Engineer Regiments	3
Engineer Battalions	8
Motor Transport Regiments	11

(1) Formations/ Units	(2) Forces in	(3) Forces Necessary for Administration and Transportation (See para 5c)	(4) Forces Necessary for Internal Security (See para 6c)	(5) Theater Reserve Forces (See para 6c)	(6) Forces Used in the Attack (See para 5e)	(7) Reinforcements Required for Ke Attack
a. Miscellaneous Troops	15 000	500				
b. Army Headquarters	2			2	2	2
c. Army Artillery Regiments	3			2	2	1
d. Standard Infantry Divisions					1	1
e. Light Infantry Divisions	7			6	5	4
f. Independent Infantry Regiments			4		4	8
g. Border Defense Regiments	5		5			
h. Engineer Regiments	6 (RY)				9 (7 + 2)	3
i. Engineer Battalions Regiments					8	8
j. Motor Transport Regiments	1	12				11

8. Supply Support to the CCAF

At Section IX paragraph 3.d it has been estimated that 59 short tons per day would be required for the CCAF in Burma from ground supply sources. This could be supplied without interference with ground operations.

9. Stockpiling

Appendix "E" shows that:

a. At the start of the attack after 12 months stockpiling the Chinese would have accumulated at least 223 000 tons.

b. At the end of the first dry season the stockpile would have declines to approximately 114 000 tons.

c. With the existing input of supply into the K'un-ming area the Chinese could not support a prolonged war in India through Burma without several years of accumulated stockpile.

d. This condition will persist until such time as the railway from Central China reaches beyond K'un-ming to near the Sino-Burmese frontier.

IX. CCAF TACTICAL AND SUPPORT FACILITIES

1. Factors Affecting Air Operations

a. Five major factors would influence a Chinese decision to employ the CCAF in support of an attack on India through Burma.

(1) In contrast with the Tibetan area, several airfields capable of supporting jet aircraft are available in south central China and in Burma. Two of these fields (Meng-tzu west and K'un-ming) are served by rail.

(2) Tactical flying is practically impossible in Burma and northeastern India during the monsoon season from June through September due to cloud cover, thunderstorms, and rain.

(3) If the Chinese should occupy northern Burma, five major airfields capable of supporting jet aircraft would be available for further operations against India. However, air operations from these fields would present a logistics problem in moving supplies westward from the K'un-ming area.

(4) Chinese operations against northeastern India could also be supported from Lhasa and Nagchhu Dzong in Tibet and Yu-shu in Tsinghai province.

(5) Early warning radar coverage is moderately overlapping along the southern half of the China-Burma border but only sparse along the northern half of the frontier. Chinese early warning capability at 40,000 feet probably extends west for about 130 miles into Burma. No CCAF GCI radar sites have been reported in this area. All Chinese radar units are mobile and could be moved overland into Burma.

b. Excluding air logistics problems, conditions are favorable for employment of air in support of ground forces attacking India through Burma. The CCAF is numerically much larger than the Indian Airforce. The capabilities of the CCAF aircraft (Mig-15/17's and IL-28's) are generally the same as those of the Indian Air Force (excluding the few IAF Mig-21's).

c. Aircraft range - radii are shown on overlay 4 to Map No. 3.

2. Tactical Air Supply

a. If the Chinese attack India through Burma, they will probably rely heavily on aerial resupply because of the scarcity of east-west roads in the area. It is estimated that about 70 aircraft - 35 LI-2/CAB and 35 AN-2/COLT transport aircraft - would be available for operations in Burma. In addition, 28 C-46 light transports, probably based in the Ch'eng-tu area, could give support in the Burmese area for a limited time.

b. The aircraft based at Ch'eng-tu would probably consist of the major elements of the 13th Air Division. They would be capable of delivering about 84 tons a day to forward airfields in the Burmese area. They would probably be used to develop and maintain an initial stockpile in the Myitkyina area, and would be able to operate for about 25 per cent more flying days than would the fighter aircraft they could support.

c. Of the estimated 70 aircraft which would be fully committed to the Burmese operations it is believed that the 35 LI-2/CAB aircraft would be based in the K'un-ming area. These aircraft would be capable of airlifting daily 60 tons of materiel in support of fighter aircraft operating from Burmese airfields.

d. The 35 AN-2/COLT transports would probably be based as follows:

10 at Putao

10 at Singkaling Hkamti*

15 at Bhamo

These aircraft would probably be able to fly two sorties per day. Each sortie would carry about one ton of cargo for air dropping or 10 paratroopers. It is estimated that daily requirements to support these aircraft would be:

*Temporarily unserviceable but could accommodate AN-2 aircraft with minor engineer effort.

15 tons at Putao

15 tons at Singkaling Hkamti

20 tons at Bhamo

Airfield	No. and type of aircraft	Sorties per day	Tons air-dropped per day	Daily Resupply Requirement
(a) Putao	10 AN-2	14	14	15
(b) Singkaling Hkamti	10 AN-2	14	14	15
(c) Bhamo	15 AN-2	14	21	20

3. Maximum Chinese Air Capability

a. General

(1) It is estimated that the Chinese could deploy 240 tactical aircraft (150 jet fighter, 50 jet light bombers, and 40 prop light bombers) to forward airfields in China and Burma to support an attack on India through Burma.

(2) With these aircraft the Chinese could fly about 245 sorties per day, 65 ground support and 180 air defense). This would be in addition to the force outlined in TAB "A" that could be deployed in Tibet to support an attack on India.

(3) In addition the Chinese could utilize about 15 TU-4 bombers from bases in central China to bomb targets at Calcutta, New Delhi and possibly Bombay. However, these prop medium bombers would be operating beyond the range of fighter cover and would be vulnerable to intercept by Indian Air Force jet fighters.

b. Logistics

Maximum aircraft deployment and the required logistics to support these aircraft is indicated below:

(1) Airfield	(2) Aircraft	(3) Tonnage required per day
(a) K'un-ming	60 MIG 15/17	104
	25 IL-28	186
	20 TU-2	43
Total	105	333

Airfield	Aircraft	Tonnage required per day
(b) Meng-tzu West	30 MIG 15/17	52
	25 IL-28	186
	20 TU-2	43
Total	75	281
(c) Namponmao (Burma)	30 MIG 15/17	52
(d) Bhamo (Burma)	30 MIG 15/17	52

Note. Since the Chieng-tu airfield complex is not in the forward area of operations and logistic support for the transport aircraft based on these airfields would not constitute a major problem, the requirements for these aircraft are not listed in the above table.

c. Summary of Air Supply Available

The following table is extracted from data in paragraph 2:

(1) Base	(2) Aircraft	(3) Airfield Supplied	(4) Short Tons Delivered Daily
(a) Chieng-mu	28 C-46	Burma Fields	84
(b) K'un-ming	35 LI-2 CAB	Burma Fields	60

d. Required Overland Logistics Support for Air Units

From paragraphs b. and c. it can be concluded that the CCAF would require the following supplies delivered to airfields from ground supply sources.

Airfield	Tonnage Requirement at Maximum Operating Capability (per day)	Tonnage Delivered By Air (per day)	Tonnage Delivered by Road (per day)
Burma Fields (Jets and Transports)	203	144	59

All support for units at Yu-shu, K'un-ming, and Meng-tzu west would have to be delivered by rail or road.

4. Probable Level of Operations

a. As stated in paragraph 4. a. Section VII of TAB "A", Communist China probably would not initiate major offensive air operations against India from Tibet. However, they probably would deploy a regiment of jet fighters to Lhasa and one to Yu-shu for air defense, and a detachment of transports to

Lhasa for aerial resupply missions.

b. In the event the Chinese should launch a major attack on India through Burma, they probably would make the maximum use of air support because of the more favorable airfield and support conditions in the China-Burma area. Therefore, the table in paragraph 3b also shows the probable level of operations.

5. Airborne Operations

a. We can foresee no suitable targets for airborne forces in north-eastern India. The only likely targets in Burma would be airfields and important communication centers at Myitkyina, Bhamo, and Mandalay. However, the expense of an airborne operation when compared to the probable ease with which a Chinese ground force could accomplish the same objective, probably would decide against airborne operations in Burma.

b. If the Chinese should decide to employ airborne troops, they could air drop two infantry airborne battalions anywhere in Burma with an initial lift of:

34 IL-14/Crate or IL-12/Coach

26 C-46's

c. Following the initial air drop the Chinese could air land one regiment in the following two days, and the remainder of one light division within four to five weeks.

X. INTERDICTION TARGETS

The targets listed in Appendix "A" are considered to be essential to the Chinese Communist supply system for support of operations into India through Burma. Destruction of these targets would greatly reduce the Chinese capability to conduct such operations.

1. Railroads

a. The rail line which currently reaches K'un-ming, through North Vietnam, is vulnerable to interdiction at several critical points.

(1) The P'ing-hsiang transfer point (Target B'-1) is the place at which shipments bound for K'un-ming leave the Chinese standard-gauge system and are transferred to the meter-gauge rails. Destruction of the P'ing-hsiang rail yards and transfer facilities would result in serious disruption of the flow of materiel.

(2) Simultaneous destruction of the adjacent Dong Dang railroad yards on the North Vietnam side of the border (Target B-2) would make the disruption of traffic even more complete, as would the destruction of the railroad classification yards at Hanoi (Target B-3).

(3) Further interdiction of this line can be accomplished by the destruction of an important railroad and highway bridge at Ho-k'ou (Target B-4) and two more vulnerable bridges near K'ai-yuan (Targets B-5 and B-6).

b. Supplies also reach K'un-ming from the Chinese standard-gauge rail system, which now reaches past Kuei-yang to An-shun, from which point cargo must be transshipped onto trucks to Chan-i.

(1) Destruction of the Tu-yun railroad bridge (B-7) would deny An-shun rail traffic until repair of the bridge.

(2) Destruction of rail-to-road transshipment facilities at An-shun (B-8) would further hamper movement of supplies on this route.

(3) Loss of the use of similar facilities at Chani- (B-9) would hamper th reloading of goods onto the railway from Chan-i to K'un-ming.

(4) Destruction of facilities at Kuang-t'ung (B-10), terminal point of the meter-gauge line from K'un-ming, would also hamper theoffloading of supplies onto trucks bound for Burma. However, the most vital points on the rail lines which curren ly terminate at Kuang-t' ng are the railroad yards in K'un-ming (B'-11 and B'-12). Destruction of or serious damage to facilities at these yards would, if accomplished simultaneously with attacks on targets B'-1 through B'-9, cut rail service to Kuang-t'ung for several months.

c. Although too distant to be considered a primary means of supply, the Ch'eng-tu and I-pin railheads do constitute an alternate source of rail traffic for the Burma area. Roads from these railheads funnel down into a single road leading to the K'un-ming area. Destruction of the classification yards at Ch'eng-tu and Mien-yang, already considered in relation to supply of the Sino-Indian border (Targets A'-4 and A'-5), would likewise remove the possibility of use of these railheads to supply the southern theater. Destruction of two vulnerable railroad bridges (B'-13 and B'-14) would have the temporary effect of severing I-pin's rail connections with Ch'eng-tu and K'un-ming until reconstruction of the bridges. It is estimated that the simultaneous destruction of targets A'-4, A'-5, B'-13, and B'-14 would end the possibility of use of this alternate route of resupply to the southern theater for several months.

2. Roads

a. The An-shun-Chan-i road section which forms the present road link of the incomplete Kuei-yang- K'un-ning rail line is most vulnerable at the Pan Chiang bridge (B'-15), approximately half way between the two present rail terminals.

b. The road south from the Hsia-kuan area to Lashio via Meng-ting is most vulnerable as it crosses the Mekong River over a one-lane, 275-foot suspension bridge (B'-16) estimated to have a capacity of less than 7 tons. The road from Hsia-kuan to Pao-shan is also vulnerable where it crosses the Mekong over a 285-foot suspension bridge of probably 5-ton capacity (B'-17).

c. The Burma Road (Imphal Route) is particularly vulnerable at several bridges and a defile. The most important of these potential targets is the long 3,960-foot combined highway and railway bridge over the Irawaddy River at Ava (B'-18). This is a steel through-truss bridge with nine 360-foot spans and several shorter spans. The other vulnerable points are at the Salween River, where the road crosses a 300-foot suspension bridge with an estimated capacity of five tons (B'-19); at the Myitnge River, where it crosses a 233-foot single-double Bailey bridge and a 735-foot six-span bridge (B'-20 and B'-21); at a narrow defile seven miles east of Kalewa (B'-22); and at a rail and highway bridge midway between Mandalay and Monywa (B'-48).

4. Logistical facilities

a. The most important supply depot in K'un-ming Military Region, which encompasses all of Yunnan and Kweichow Provinces, appears to be the K'un-ming General Supply Depot (B'-39), which covers an area of over 300 acres with at least 400 storage supply and maintenance buildings totalling approximately 2,200,000 square feet of floor area. Photography has also revealed up to 230 vehicles present in this area at a given moment. Destruction of this facility would greatly hamper the resupply of Chinese troops operating in Burma. This installation appears to house air force logistical support and repair facilities as well as ground force supply facilities.

b. The Hsia-kuan General Depot (B'-40) appears to be the supply point for troops west of that point on the Burma border. Destruction of this facility would deprive troops operating over the Ledo and Burma roads of their supply base.

5. Military Headquarters and Telecommunications Facilities

Civil and military telecommunication facilities are now providing telephone, telegraph, teleprinter, and radio communication services to the urban centers and military installations of the region. Civil telecommunications facilities in the area consist mainly of well-constructed open-wire lines parallel to the road and railroad network. The primary wire system is integrated with a back-up radio communication network linking all major towns. The K'un-ming Military Region has wire and radio service to all military units of the region and to other military regions over a separate system that often parallels the civil network. The two systems could be integrated into one extensive system for military operations, but are currently operating separately. Other primary lines extend directly from K'un-ming to Hanoi and over secondary lines to Mandalay, from Wan-t'ing on the Burma border. K'un-ming (B'-41 B'-42 B'-43) and nearby An-ning (B'-44) are key telecommunication centers. All the main wire lines westward along the Burma Road transit the An-ning center. Some of these facilities appear to be new. Alternate center routing facilities for K'un-ming installations are not readily available. K'ai-yuan (B'-45) and Ta-li (B'-46) are other key communications centers. These places are also the headquarters areas of the 13th and 14th Armies respectively.

d. The Ledo Road is especially vulnerable to interdiction at four bridges:

(1) where the road crosses the Salween River over a 330-foot suspension bridge (B'-23);

(2) at a new 689-foot seven-span steel girder bridge over the Tanai River (B'-24);

(3) where it crosses the Shweli (Lung-ch'uan) River over a suspension bridge (B'-25); and

(4) at a 450-foot Bailey bridge over the Namkaung Chaung at Warazup (B'-26)

e. The southern route through Keng tung and Shwenyaung to Mandalay, is considered a primary route to India through Burma because of its greater length and low potential maximum capacity. It is also especially vulnerable to interdiction at three defiles and one bridge:

(1) at three marginal timber trestle bridges over the Nam Pang River near Kunhing (B'-27)

(2) at a defile to the east of Taunggi (B'-28)

(3) at the hairpin curves on the sharp descent from Taunggi to Schwenyaung (B'-29); and

(4) at the hairpin curves from Kalaw to Nampandet (B'-30).

3. POL.

There are no petroleum refineries in South China with the exception of a small refinery at Nan-ch'ung and the Mao-ming shale oil refinery in Kwangtung Province, which is still under construction. Chinese Communist operations against India through Burma in the present or near future would have to be supplied with petroleum from depots stocked from the distant refineries at Shanghai or Lanchou. There is an oil field and refinery at Nan-ch'ung east of Ch'eng-tu POL depots supporting a Chinese attack through Burma which would be potential prime targets are at Kuei-yang (B'-31), which has an estimated capacity of 28,000 metric tons; and K'un-ming (B'-32), with an estimated capacity of 12 000 metric tons. Another rail-served, twenty-tank POL depot of undetermined capacity is at Yang-lin (B'-33), just northeast of K'un-ming. Other known storage facilities more remote from the potential theater are at Ch'eng'tu (B'34), Ch'ung-ch'ong (Chungking) (B'-35), Mien-yang (B'-36), Chiang-ching (B'-37), and Nan-ch'ung (B'38). These facilities have estimated capacities of 39,000, 9,000, 8,000, 33,000 and 5,000 metric tons respectively

6. Area Target

K'un-ming is a vital transportation, communication, supply, and command center for control of any Chinese Communist military operation through Burma into India. Loss of or serious damage to the facilities at this center would cripple Chinese operations and probably result in their curtailment. The population center of K'un-ming (B'-47) has therefore been selected as the area target for this portion of the study.

XI. INTELLIGENCE GAPS

There are significant gaps involved in most aspects of this study. Our knowledge of the readiness, capabilities, and manning and equipment levels in the troop units is slight. As a result of a recently completed six month study of the organization and equipment of Chinese Communist Army units we now have fair confidence in our knowledge of the TOE's involved, but actual unit strengths, which are generally below TOE authorization, may only be estimated. Because of recent emphasis on the readout of photography on military camps, we have increased our estimate of our holdings on ground division locations from fair to good. We are now also confident of our knowledge of the identification of specific divisions in the area. Our knowledge of logistical and petroleum storage facilities in the area must still be rated as poor although improving as a result of work undertaken for this study.

Our knowledge of airfields in the area is generally very good, but current information is lacking on the status of several airfields near the Burma border, especially Pei-t'un, which was under construction in 1962. We are also uncertain of the definite status of the airfield near Meng-hsi, which has probably been used by light transports, and the World War II fields at Mang-shih, which has probably been abandoned. Air logistics is another weak field. Information is lacking on the extent of current Soviet aid and stock levels of aircraft parts. Information is also lacking on Chinese production level of spare parts and engines, the extent of the POL reserve maintained for air units, and the rate of aircraft availability which can be maintained by Chinese maintenance facilities over an extended period of air operations.

Our knowledge of the status of Chinese railroad building and the approximate capacities of the present railroad is fair, but we lack data on the adequacy and condition of rolling stock and other specific equipment and line characteristics. Recent information on telecommunications facilities in the

area is scarce. Our knowledge of the total number of vehicles in the area is also poor. We have fair confidence in our estimates of road capacities within China in this area, but our data on the Burmese roads is inadequate. Recent ground photography on the roads and specific vital points throughout the area is needed.

Appendix A to TAB "B"

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Interdiction Targets

Project Target Number	Reference (Major/minor)	Name	Coordinates
B-1	66260-66260	P'ing-hsiang RR yards and transfer site	22-04-45N/ 106-44-20E
B-2	45280-45280	Dong Dang RR yard	21-56-30N/ 106-42-00E
B-3	26805-26805	Hanoi RR classification yard	21-01-18N/ 105-50-42E
B-4	27475=27475	Ho-k'ou RR & highway bridge over Nan-chi	22-30-22N/ 103-58-18E
B-5	31493-31495	K'ai-yuan RR bridge over Nan-pan Chiang tributary	23-41-36N/ 103-15-41E
B-6	31493-31493	K'ai-yuan RR bridge over Nan-pan Chiang	23-48-30N/ 103-12-30E
B-7	89622-89622	Tu-yun RR bridge over stream	26-18-02N/ 107-30-11E
B-8		An-shun rail-to-road transhipment point	
B-9	11494-11494	Chan-i	25-36-25N/ 103-49-02E
B-10		Kuang-t'ung	25-10-11N/ 101-45-11E
B-11	43495-43495	K'un-ming RR classification yards, ships, & transfer site	25-00-38N/ 102-46-43E
B-12	43495-43495	K'in-ming RR station and yards south	25-01-59N/ 102-46-43E
B-13	57718-57718	Pei-mu-chen RR bridge over T'u Chiang	29-31-00N/ 105-04-00E
B-14	29642-29642	I-pin RR bridge over Min Chiang	28-46-53N/ 104-37-35E
B-15	14790-14790	Pan Chiang Ch'iao highway bridge over Pei-pan River	25-52-01N/ 105-22-31E
B-16		Kung-lang suspension bridge over Mekong River	24-42-N/ 100-23E

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B-17	66980-66980	Kung-Kuo Ch'iao Highway Bridge South over Mekong River		25-36-01N/ 99-19-32E
B-18	51242-51242	Ava RR and highway bridge over Irawaddy River		21-52-18N/ 95-59-36E
B-19	44890-44890	La Meng highway bridge over Salween River		24-44-05N/ 98-58-05E
B-20	28735-28735	Hsipaw highway bridge over Myitnge River		22-36-25N/ 97-18-30E
B-21	51242-51242	Myitnge highway bridge over Myitnge River		21-50-32N/ 96-04-10E
B-22		Burma Road defile east of Kalewa		23-11N/ 94-24E
B-23	50308-50308	Ma-liao-pu highway bridge over Salween River		25-01-10N/ 98-51-40E
B-24		Highway bridge across Tanai River		26-22N/ 96-44E
B-25		Highway suspension bridge over Shweli River		25-01N/ 98-41E
B-26		Bailey bridge across Chaung at Warazup		25-48N/ 96-38E
B-27	43607-43607	Kunhing highway bridges over Nam Pang River		21-18-03N/ 98-26-21E
B-28	45807-56807	Kaung Nio vulnerable road section		20-52-50N/ 97-31-00E
B-29		Taunggyi-Shwenyaung vulnerable road section hairpin curves		20-47N/97-02E 20-46N/96-57E
B-30		Kalaw-Nampandet vulnerable road section hairpin curves		20-38N/96-34E 20-45N/96-29E
B-31	43240-43240	Kuei-yang Petroleum products storage		26-28-53N/ 106-44-03E
B-32	43495-43495	K'un-ming petroleum products storage		25-02-05N/ 102-46-38E

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B-33		Yang-lin petroleum products storage	25-13N 103-08E
B-34	12810-12810	Ch'eng-tu petroleum products storage Chao-chiao-ssu	30-44-58N 104-05-20E
B-35	16155		
B-35	16155-16155	Ch'ung-ch'ing (Chungking petroleum products storage	29-43-00N/ 106-35-00E
B-36	52987-52987	Mien-yang petroleum products storage	31-28-20N/ 104-46-00E
B-37		Chiang-ching POL storage ESE and SSW	29-16N/106-17E 29-15N/106-14E
B-38	56910-56910	Nan-ch'ung petroleum refinery	30-48N 106-04E
B-39	43495-43495	K'un-ming Gen Supply Depot	25-01-05N/ 102-44-48E
B-40	82478-84278	Hsia-kuan General Depot & Hq 42 Inf Div	25-36-05N/ 100-13-00E
B-41	43495-43495	K'un-ming Thick Eight HF DF Center	24-56-05N/ 102-46-43E
B-42	43495-43495	K'un-ming Radio Communication Station	24-55-35N/ 102-47-48E
B-43	43495-43495	K'un-ming Telephone Exchange	25-04-00N/ 102-41-00E
B-44	43495-01839	An-ning Radio Communication Station	24-52-35N/ 102-28-55E
B45	31493-31493	K'ai-yuan Hq 13th Army & Communications Center	23-40-55N/ 103-14-11E
B-46	84278-84278	Ta-li Hq 14th Army & Communication Center	25-42-30N/ 100-08-58E
B-47	43495-43495	K'un-ming	25-02-34N/ 102-42-22E
B-48	61007-61007	Nyaungbinwun RR & Highway Bridge over Mu River	21-58-40N/ 95-40-40E

S.M.T

Appendix "I" to TAO "B"

SECRET ANNEX — ROUTE CAPACITIES

(1) Route		(2) Distance Miles	(3) Capacity Max	(4) Capacity Min	(5) (6) (7) (8) 1 - by the winter				(9) (10) (11) (12) other				(13) (14) (15) (16) Summer the				(17) (18) (19) (20) ind rel the			
					% Climatic Reduction	Reduced Capacity	POL Deduction	Net Capacity Rounded	% Climatic Reduction	Reduced Capacity	POL Deduction	Net Capacity Rounded	% Climatic Reduction	Reduced Capacity	POL Deduction	Net Capacity Rounded	% Climatic Reduction	Reduced Capacity	POL Deduction	Net Deliv'd Rounded
1. Routes in China																				
Yuan-T'ing	Hsin-Chieh	320	1000	350	0	870	133.4	740	10	795	143.3	790	0	1000	153.3	850	10	935	143.3	790
Hsin-Ch'ang	Chen-nan	250	450	100	20	360	45.7	330	10	415	44.8	370	0	450	54.1	400	10	415	49.8	370
Hsin-Chieh	T'eng-Ch'ung	93	800	175	20	635	33.8	640	10	737	36.7	700	0	800	40.0	760	10	737	36.7	700
Hsin-Chieh	Border (Wan-T'ing)	173	1000	350	30	805	64.9	740	10	935	80.0	860	0	1000	89.7	910	10	935	80.0	860
Yun-Nan-I	Teng-Ying	170	600	125	30	468	29.3	440	10	553	47.3	510	0	600	51.4	550	10	553	47.3	510
2. Lung Route																				
T'eng-Ch'ung	Myitkyina	105	50	0	50	25	811	25	10	45	811	40	0	50	811	50	10	49	811	40
T'eng-Ch'ung	Ihano	100	400	100	30	310	15.9	290	10	370	17.6	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Ihano	Myitkyina	112	1100	350	50	725	39.6	680	1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1.20	10	10.5	9.1	470
Border (Wan-T'ing)	Ihano	104	400	50	50	175	9.2	170	10	365	19.3	350	0	400	21.2	380	10	365	19.3	350
Myitkyina	Tanai	177	1200	400	50	827	54.1	770	10	1215	79.1	1140	0	1200	89.5	1210	10	1215	79.1	1140
Tanai	Shingbwiyang	40	750	0	50	375	7.5	370	10	675	13.5	660	0	750	15.0	740	10	675	13.5	660
Shingbwiyang	Pangsau Pass	66	550	0	80	110	3.9	110	10	495	17.4	480	0	550	19.3	530	20	440	15.4	420
Pangsau Pass	Ditrugarh	90	400	0	50	200	9.0	190	10	360	16.2	340	0	400	18.0	380	10	360	16.2	340
3. Putao Route																				
Myitkyina	Kawapang	12	600	0	50	300	12.0	290	10	540	21.7	520	0	600	24.0	580	10	540	21.7	520
Kawapang	Putao	133	400	0	50	200	13.8	190	10	360	24.8	340	0	400	27.6	380	10	360	24.8	340
4. Homalin Route																				
Ihano	Homalin	170	50	0	30	35	2.9	30	10	45	3.7	40	0	50	4.2	50	10	45	3.7	40
5. Imphal Route																				
Border (Wan-T'ing)	Mandalay	260	1800	800	20	1600	221.0	1380	10	1700	234.7	1470	0	1800	248.6	1550	10	1700	234.7	1470
Meng-Ting	Hsenwi	72	450	100	30	345	12.1	330	10	415	14.6	400	0	450	15.8	430	10	415	14.6	400
Mandalay	Kalewa (via Shwebo)	224	700	0	40	420	45.8	370	10	630	68.5	560	0	700	76.1	620	10	630	68.5	560
Mandalay	Monywa	57	4000	2000	20	4,50	127.2	4120	10	4575	129.8	4300	0	4800	144.0	4660	10	4575	129.8	4300
Monywa	Ye-u	50	2000	850	20	1570	74.2	1510	10	2789	69.7	2715	0	3000	74.0	2930	10	2789	69.7	2715
Monywa	Kan	100	400	0	30	280	14.0	270	10	360	18.0	340	0	400	20.0	380	10	360	18.0	340
Kan	Hpakmezik	72	50	0	50	25	811	25	10	45	811	45	0	50	811	50	10	45	811	45
Kalewa	Tamu (1)	82	700	150	40	510	20.4	490	10	690	27.6	660	0	750	30.0	720	10	690	27.6	660
Tamu	Gelaghat	202	2150	550	10	1910	96.5	1810	10	2000	204.9	1770	0	2150	223.3	1920	0	2150	223.3	1920
Divisor	Chegarmukh	120	400	0	20	320	19.0	300	10	360	21.4	340	0	400	23.8	380	0	400	23.8	380

Notes: 1. Climatic Reduction. The percentages shown of the difference between the maximum and minimum capacity have been subtracted from the maximum to give the reduced capacity. This percentage allows for extremes of climate not catered for in the road capacity methodology. It is based on the rainfall, [illegible] fall, fog, flood and landslide hazard known to exist, and upon the soil data.

2. All months have 30 days only.

3. Tonnage available at Tamu will only be between 0 and 550 short tons per day due to the limiting section from Imphal to Kalewa, which is always between 0 and 577 short tons to Kalewa. Tonnages on Kalewa-Tamu leg is 30 and 50 tons respectively.

(S) TERRAIN AND CLIMATIC LIMITATIONS TO LOGISTIC SUPPORT AND AIR OPERATIONS IN BURMA AND ASSAM

I. TERRAIN

1. General

The area under consideration lies north of the 22nd parrallel and comprises mostly high, steep-sloped hills with upland basins, undulating plateaus, and lowlands between the Irrawaddy and Chindwin Rivers. It can be divided into four distinct regions:

a. Western Hills

b. Northern Hills and Basins

c. Shan Plateau

d. Lowlands

2. Western Hills

a. These consist of a series of parallel ridges and valleys trending roughly N and S along the frontier with India, with occasional transverse connecting gaps. Many of the ridges are over 6,000 feet above sea level, with the highest point at 12,550 feet. East of the summit ridges the foothills slope down to the lowlands of the Chindwin in a series of ridges and valleys.

b. These hills form a considerable barrier to East-West movement of any kind. Vehicles, other than jeeps, would be confined to the few routes which gollow gaps in the hills. Lightly armed troops on foot could move along the numerous tracks which exist almost everywhere - especially in the Manipur Hills.

c. Dense evergreen forest clothes the steep slopes of the hills and is a severe hindrance to movement. Rivers have a distinctly seasonal flow and become fast-flowing and full during the wet season (mid-May through September), making crossing difficult.

3. Northern Hills and Basins

a. Much of this area consists of steep N-S trending hills 6-9,000

feet above sea level. These rise to over 15, 000 feet at the tri-junction Burma/India/China. Movement is difficult even for pack animals and the trans-frontier tracks cross high passes which are difficult during the rains and are liable to be blocked by snow for long period during the winter.

b. There are a number of inland basins which are reasonably flat, and cultivated. Local movement conditions are good, but confined. The biggest of these basins is in the Sinbo/Mytkyina area.

c. Vegetation on the lower slopes of the hills is dense evergreen forest, on the upper slopes, deciduous forest. In both cases movement even on foot is inhibited, and the swift rivers in their narrow valleys are difficult to cross.

4. Shan Plateau

a. This is very diverse country, mainly over 3, 000 feet, which is a mixture of highly dissected hills and broad, open undulating plateaus. The Salween River flows through a trough 2/3, 000 feet below the hills. To the east of the river, along the border with Yunnan, the country is very broken, with summits rising to 7, 000 feet and many intermontane basins. There are numerous tracks, and movement by lightly armed troops should not be too difficult. Over much of the plateau, which is of limestone, well-grained and with only a light vegetation cover, MT movement would be reasonably good. There is a belt of broken terrain where the west edge of the plateau drops down to the Irrawaddy valley and this makes East-West movement difficult.

5. Lowlands

This region consists of open, undulating tablelands, rolling plains with stretches of flat alluvial land along the rivers. Movememt presents no great difficulties, although the main rivers are serious obstacles, and,

with widespread settlement, there are large areas of cultivation. During the wet season however, movement may be difficult.

II. CLIMATE

1. Ground Operations

a. The Southwest monsoon, lasting from mid-May through September, is warm and humid. Day temperatures are in the 80's and 90's, (°F.) lowering to the 60's and 70's at night; cooler temperatures are common at higher elevations. Relative humidity averages 80% or more much of the time. Rain generally averages from 10 to 20 inches per month, with some exposed slopes receiving more than 35 inches. Thunderstorms are common in the spring and during the Southwest monsoon seasons. Their frequency is determined by local conditions, at some locations thunderstorms occur on 50% of the days in certain months. This season would clearly be the most unfavorable for most military operations.

b. Autumn, which is usually the month of October, is the transition season from the wet Southwest monsoon to the dry Northeast monsoon.

c. The Northeast monsoon lasting from November through March, is the dry winter season. Precipitation is at a minimum, averaging less than 2 inches per month in most places. Temperatures are mostly in the 60's to 70's during the day, dropping to the 40's and 50's at night; freezing temperatures may occur at higher elevations. This would be the most favorable season for most military operations.

d. Spring, lasting from April through mid-May, is the transition from the dry winter to the wet summer. Over much of this area temperatures reach a maximum just before the onset of the Southwest monsoon, averaging a few degrees warmer than in the summer. Thunderstorms are common with the advance of the southwest monsoon.

2. Air Operations

a. Weather conditions are least favorable for air operations during

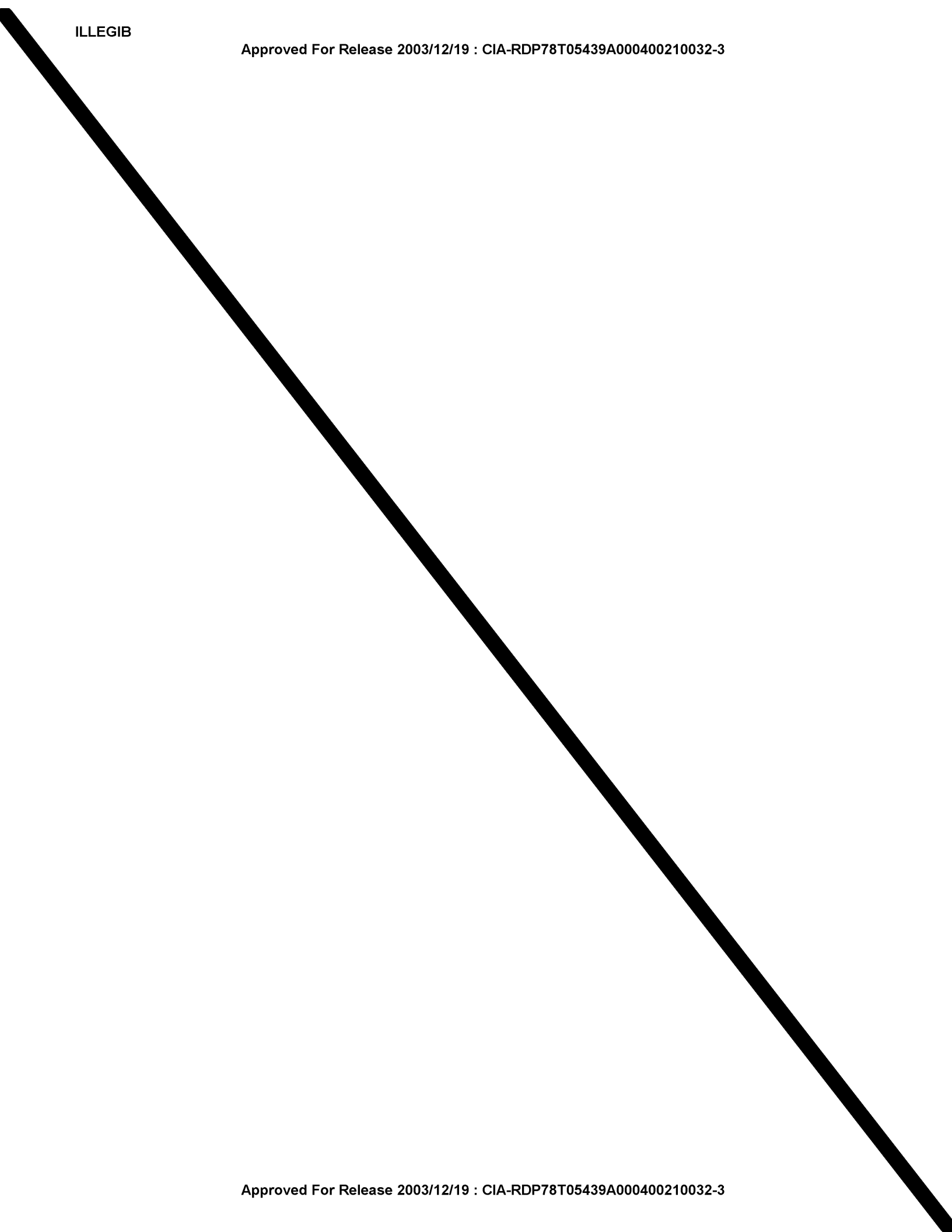
the southwest monsoon season, when cloudiness and precipitation are at a maximum. Convective-type clouds are predominant with frequent layers of middle and high clouds. Cloudiness is generally most predominant over the southwest slopes and the peaks of mountains. Thunderstorms and showers are frequent in this season. Aircraft icing is most prevalent and hazardous from 15, 000 to 18, 000 feet. Flying conditions are generally worse during the 1 or 2 expected tropical storms per season in this region. Winds aloft are mostly southerly, shifting to southeasterly at about 10, 000 feet.

b. Weather conditions are generally favorable for air operations during the northeast monsoon season. However, strong westerly winds are sometimes present above 20, 000 feet. Aircraft icing may occur at times from 10, 000 to 13, 000 feet, but is usually not a major problem since cloudiness is at a minimum.

(S) ESTIMATED DAILY SUPPLY REQUIREMENTS FOR UNITS WEST OF KUN-MING AS OF 1 JANUARY 1964

(1) Unit*	(2) Strength as at 1 Jan 64	(3) Daily Re-supply Requirements (short tons) Class I	(4) Class II & IV	(5) Class III	(6)
a. Hq 14 Army and Army troops	3,600	5.5	4.9	3.7	14.1
b. 14 Army Artillery Regiment	1,200	2.0	1.8	5.1	8.9
c. 40 Infantry Division	11,100	21.4	16.8	3.7	49
d. 41 Infantry Division	11,100	21.	16.8	3.7	41.9
e. 42 Infantry Division	11,100	21.4	16.8	3.7	41.9
f. 8 Border Defense Regiment	2,000	3.4	2.7	.3	6.4
g. U1 Border Defense Regiment	2,000	3.4	2.7	.3	6.4
1. TOTALS	42,100	78.50	62.50	20.5	160 (rounded)

*Units listed are only those which draw supply from K'un-ming thus drawing off tonnage which might otherwise go to stockpile in the Hsin-chich area.



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GAZETTEER

PLACE NAMES AND LOCATIONS

Name	Variant	Geographic Coordinates (N/E)
An-shun		[illegible]/105-56
Ava		21-51/95-58
Bhamo Airfield		24-16/97-14
Chan-i		25-36/103-48
Chaparmukh		26-13/92-32
Che-li	Ching-hung	21-57/100-45
Ch'eng-kung		24-53/102-48
Ch'ent-tu		30-40/104-05
Ch'ent-tu/Shuang-liu Airfield		30-35/103-57
Ch'eng-tu/Wen-chiang Airfield		30-42/103-57
Chen-k'ang		24-07/99-25
Chen-nan		25-15/101-21
Chiang-ch'eng		22-35/101-52
Chin-ning		24-40/102-45
Chin-p'		22-48/103-22
Chungking/Pai-shih-i Airfield		29-30/106-21
Dibrugarh		27-28/94-54
Digboi		27-27/95-42
Dimapur		25-54/93-43
Diphu Pass		28-09/97-20
Dong Dang		21-57/106-42
Feng-i		25-35/100-20
Fo-hai		21-56/100-25
Gangaw		22-10/94-08
Gauhati		26-11/91-44

Golaghat		26-30/93-58
Hanoi		21-02/105-53
Ho-k'ou		22-30/103-58
Homalin		24-52/94-55
Hpaunzeik	Natkyingon	23-15/94-11
Hsenwi		23-18/97/58
Hsia-kuan		25-34/100-14
Hsi-ch'ang		27-53/102-18
Hsi-ch'ang Airfield		27-55/102-13
Hsin-chieh		25-02/99-12
Hsipaw		22-37/97/18
Imphal		24-48/93-57
Indaw		24-13/96-09
I-pin		28-43/104-42
K'ai-yuan		23-42/103-16
Kalemyo		23-11/94-04
Kalewa		23-12/94-18
Kan		22-25/94-06
Kan-tzu Airfield		31-37/100-02
Katha		24-11/96-21
Kawapang		26-10/97-30
Keng Tung		21-17/99-36
Ko-chiu		23-27/103-09
Kohima		25-40/94-06
Kuant-t'ung		25-10/101-45
Kuei-yang		26-10/106-40
Kuei-yang/Lei-chuang Airfield		26-25/106-33
Lung-lang		24-54/100-20
Kung-shan		27-58/98-38

Kunhing		21-18/98-26
K'un-ming		25-04/102-41
K'un-ming Airfield		25-01/102-45
K'un-yang		24-37/102-35
Lai-fu-tu		28-31/104-43
Lan-chou		36-03/103-41
Lao Kay		22-28/103-59
Lashio		22-56/97-45
Ledo		27-17/95-45
Lhasa Airfield		30-30/91-06
Lien-shan		24-43/97-55
Li-ma	Rima	28-24/97-02
Lu-feng		25-10/102-05
Lu-hsi		24-19/98/28
Lu-hsien Firfield		28-51/105-23
Lu-liang Airfield		24-59/103-39
Mandalay		21-58/96-07
Maymyo		22-02/96-28
Meiktila		20-56/95-54
Meng-hsi Airfield		22-00/100-16
Meng-hun		21-50/100-23
Meng-la		21-30/101-35
Meng-man		22-19/100-08
Meng-ting		23-33/99-05
Meng-tzu		23-22/103-24
Meng-tzu West Airfield		23-24/103-19
Mi-tu		25-20/100-28
Mo-chiang		23-25/101-45
Mong-yu		23-58/97-59

Monywa	22-07/95-08
Myitkyina	25-22/97-24
Myitkyina South Airfield	25-23/97-21
Myitnge	21-52/96-05
Nagchhu Dzong Airfield	31-33/91-44
Nam;onmao Airfield	25-22/97-18
Namsang Airfield	20-53/97-44
Nan-chiao	22-02/100-15
Nan-ch'ung	30-48/106-04
Nan-ning	22-49/108-19
Ning-erh	23-04/101-03
Pangsau Pass	27-14/96-10
Pao-shan Airfield	25-09/99-10
Pei-mu-chen	29-31/105-04
Pei-t'un Airfield	25-27/100-44
P ing-hsiang	22-05/106-44
Putao Airfield	27-20/97-26
Shih-p'ing	23-45/102-25
Shingbwiyang	26-41/96-13
Shuang-chiang	23-32/99-50
Shun-ning	24-35/99-55
Shwebo	22-34/95-42
Shwegyin	23-08/94-22
Shwenyaung	20-46/96-57
Singkaling Hkamti Airfield	26-00/95-42
Ssu-mao North Airfield	22-48/100-58
Ta-li	25-42/100-11
Tamu	24-13/94-19

Tanai	26-00/95-52
Trunggyi	20-47/97-02
Teng-ch'uan	26-00/100-05
T'eng-ch'ung	25-02/97-28
Ts'ang-yuan	23-10/99-13
Tu-yun	26-18/107-30
Walong	27-55/96-52
Wan-t'ing	24-05/98-04
Warazup	25-48/96-38
Yang-p'i	25-40/99-56
Ye-u	22-46/95/26
Ying-chiang	24-45/98/10
Yu-ch'i	24-20/102-30
Yu-shu Airfield	32-54/96-47
Yun-hsien	24-25/100-09
Yun-nan-i	25-26/100-42

Annex I-A

PERSONNEL AND MATERIEL, INFANTRY DIVISION (STANDARD), CCA (U)

(Total Strength 13,914)

Personnel and Major Items of Equipment	Division Total	HQ & Staff	Signal Bn	Engr Bn	Recon Co	CW Co	Flame Thrower	AAAW Bn	Arty Regt	T/AG Regt	3 Inf Regts
Officers	1 715	193	40	40	10	10	9	51	195	129	1038
Enlisted	12,199	828	242	431	125	90	75	305	1233	590	8280
Total Personnel	13,914	1021	282	471	135	100	84	356	1428	719	9318
Pistol	2,836	157	40	49	46	10	9	51	193	184	2097
Cbn/Rfle, 7.62-mm	7,069	451	187	331	9	70	58	254	907	263	4539
SMG, 7.62-mm	3,239	161	38	63	70	19	16	53	263	261	2295
LMG, 7.62-mm	306			27	9						270
HMG, 7.62-mm	135										135
AAMG, 12.7-14.5-mm	21							12			9
Mortar, 82-mm	81										81
Mortar, 120-/82-mm	27										27
Mortar, 160-mm	12								12		
RL, 40-/90-mm	81										81
RR, 57-/75-mm	27										27
RR, 75-/82-/107-mm	27										27
Gun, AT, 57-/76-mm	27										27
Gun, Fld, 76-mm	12								12		
How, 122-mm	12								12		
Gun, AAAW, 37-/57-mm	12							12			
Tank, Med, T-54/-34	31									31	
Aslt Gun, SU 76/100	12									12	
Armd Recon Veh	6				3					2	
Flame Thrower	27						27				
Trk, cargo, 4x2/6x6	381	136		15				15	66	29	120
Trk, prime mover, 6x6	78							12	36		30
Trk, 3/4-T	21	2							10		9
Trk, ¼-T	29	4	3	4				1	2	9	6
Trk, Wrecker	6	3									3
Ambulance	4	4									
Motorcycle, w/sidecar	50		12	4	9				2	17	6

Personnel and Major Items of Equipment	Division Total	HQ & Staff	Signal Bn	Engr Bn	Recon Co	CW Co	Flame Thrower Co	AAAW Bn	Arty Regt	T/AG Regt	3 Inf Regts
CW Decontam Veh	4					2				2	
Mobile Shower Veh	2					2					
Horse, Mule, etc.	519+		12								507+
Cart, cargo	498+										498+
Bicycle	48		12								36
Telephone, Field	466		45	6				21	99	16	279
Radio, manpack	350		12		5			23	73	15	222
SWBD	33		2	1				1	4	1	24
Teletype	1+		1+								
Radio, Veh Mtd	52		3		3					46	

Annex I-B

PERSONNEL AND MATERIEL, INFANTRY DIVISION (LIGHT), CCA (C)

(Total Strength: 13,195)

Personnel and Major Items of Equipment	Division Total	HQ & Staff	Signal Bn	Engr Bn	Recon Co	CW Co	Flame Thrower Co	AAAW Bn	Arty Regt	3 Inf Regts
Officers	1,586	193	40	40	10	10	9	51	195	1038
Enlisted	11,609	828	242	431	125	90	75	305	1233	8280
Total Personnel	13,195	1021	282	471	135	100	84	356	1428	9318
Pistols	2,652	157	40	49	46	10	9	51	193	2097
Cbn/Rfle, 7.62-mm	6,806	451	187	331	9	70	58	254	907	4539
SMG, 7.62-mm	2,978	161	38	63	70	19	16	53	263	2295
LMG, 7.62-mm	306			27	9					270
HMG, 7.62-mm	135									135
AAMG, 12.7-/14.5-mm	33							24		9
Flame Thrower	27						27			
Mortar, 82-mm	81									81
Mortar, 107-/120-mm	27									27
Mortar, 160-mm	12								12	
RL, 40-/90-mm	81									81
RR, 57-/75-mm	27									27
RR, 75-/82-/107-mm	27									27
Gun, AT, 57-/76-mm	27									27
Gun, Mtn, 76.2-mm	24								24	
Trk, cargo, 4x2/6x6	83	20		15				8	20	21
Trk, ¼-T	9	2			3				1	3
Motorcycle, w/sidecar	26	2	6	2	3	5			2	6
Bicycle	12		12							
Horse, Mule, etc.	714+	135+	18+	12+					24+	507+
Cart, cargo	Unk	Unk	Unk	Unk					Unk	Unk
Telephone	450		45	6				21	99	279
Radio, manpack	335		15		8			23	73	222
Teletype	1+		1+							
SWBD	32		2	1				1	4	24
Boat, Rubber, 4-man	Unk			Unk						Unk
Boat, Rubber, 10-man	Unk			Unk						Unk

Annex I-C

PERSONNEL & MATERIEL, INFANTRY REGIMENT (Standard & Light), CCA (C)

	Infantry Regiment *	
	Standard	Light
Officers	346	346
Enlisted	2760	2760
Total Personnel	3106	3106
Pistols	699	699
Carbine/Rifle	1513	1513
Submachine gun	765	765
Light Machinegun	90	90
Heavy MG, 7.62-mm	45	45
AAMG, 12.7-mm	3	3
Mortar, 82-mm	27	27
Mortar, 120-/82-mm	9	9
RL, 40-/90-mm	27	27
Rcl Rfle, 57-/75-mm	9	9
Rcl Rfle, 75-/82-/107-mm	9	9
AT Gun, 57-/76-mm	9	9
Trk, cargo, 4x2/6x6	66	15
Trk, 3/4-T	3	3
Trk, ¼-T	2	2
Wrecker	1	
Motorcycle, w/sidecar	2	2
Bicycle	12	12
Telephone, field	93	93
Radio, manpack	74	74
SWBD	8	8
Horse, Mule, etc	169 +	322 +
Cart, animal-drawn	166 +	319 +

* When operating independently

Annex I-D

PERSONNEL & EQUIPMENT BD/MIS DIVISION, PLA (U)

(Total Strength: 8,538)

Personnel & Major Items of Equipment	Div Total	HQ & Staff	Med Co	Transp Co	Signal Co	Recon Co	Guard Co	Engr Co	AAMG Co	Arty Bn	BD/MIS Regts (3)
Officers	860	85	14	8	11	10	7	9	10	46	660
Enlisted	7678	118	88	78	133	144	124	120	69	288	6516
Total Personnel	8538	203	102	86	144	154	131	129	79	334	7176
Pistols	857	85	14	8	11	10	7	10	10	42	660
Cbn/Rfle, 7.62-mm	3534			36	47	54	40	89	53	239	2976
SMG, 7.62-mm	1312			6	24	73	63	12	17	61	1056
LMG, 7.62-mm	282					9	6	6		3	258
HMG, 7.62-mm	54										54
AAMG, 12.7-mm	21								12		9
Mortar, 60-mm	84					3					81
Mortar, 82-mm	27										27
Gun, 76 -mm	12										12
Gun, Mtn, 76.2-mm	12									12	
Truck, cargo, 4x2	15			15							
Truck, 3/4-T	28		5		4						21
Truck, ¼-T	2	2									
Bicycle	82				10					3	75
Horse, Mule, etc.	461+			45	11	6		6	28	56	309
Carts, cargo	121+			15	3	2		2		24	75
Telephone	274				36					25	213
Radio, manpack	119				6	5		1	2	12	93
Radio Station	16				4						12
SWBD	19				3					1	15
Stretcher	30		12								18

Annex II A

AVERAGE DAILY RESUPPLY REQUIREMENTS FOR SELECTED CCA UNITS (C)

(SHORT TONS)

UNIT	CLASS I 100% TOE	CLASS I 85% TOE	CLASS II & IV 100% TOE	CLASS II & IV 85% TOE	CLASS III (1) 100% TOE	CLASS III (1) 85% TOE	CLASS V (2) 100% TOE	CLASS V (2) 85% TOE	TOTALS (Rounded) (3) 100% TOE	TOTALS (Rounded) (3) 85% TOE
1 Army Hq and troops, less Arty Regt	6.5	5.5	5.8	4.9	4.4	3.7	3.0	2.6	20	17
2 Army Arty Regt	2.4	2.0	2.1	1.8	6.0	5.1	20.0	17.0	31	26
3 Inf Div (Stand)	25.5	21.7	20.9	17.8	29.0	24.7	48.0	41.0	123	105
4 Inf Div (Light)	25.2	21.4	19.8	16.8	4.4	3.7	35.0	30.0	84	72
5 Armored Div	13.3	11.3	11.9	10.1	44.3	37.7	139.0	118.0	209	177
6 Anti tank Div	7.0	6.0	6.3	5.4	14.6	12.4	21.0	18.0	49	42
7 Arty Div (How)	10.7	9.1	9.6	8.2	25.8	21.9	68.0	58.0	114	97
8 Arty Div (Gun)	9.0	7.7	8.1	6.9	21.9	18.6	81.0	69.0	120	102
9 AAA Div	6.2	5.3	5.6	4.8	8.7	7.4	26.0	22.0	47	40
10 Cavalry Div	22.5	19.2	10.0	8.5	1.3	1.1	8.0	7.0	42	36
11 Airborne Div	10.3	8.8	15.4	13.1	-	-	54.0	46.0	80	68
12 Airborne Regt	2.9	2.5	4.4	3.7	-	-	16.0	14.0	23	20
13 Airborne Bn	0.7	0.6	1.1	0.9	-	-	4.0	3.0	6	5
14 Inf Regt (Stand)	6.0	5.1	4.7	4.0	3.8	3.2	8.0	7.0	23	19
15 Inf Regt (Light)	6.6	5.6	4.7	4.0	0.8	0.7	8.0	7.0	20	17
16 Indep Armored Regt	3.8	3.2	3.4	2.9	16.0	13.6	60.0	51.0	83	71

UNIT	CLASS I 100% TOE	CLASS I 85% TOE	CLASS II & IV 100% TOE	CLASS II & IV 85% TOE	CLASS III (1) 100% TOE	CLASS III (1) 85% TOE	CLASS V (2) 100% TOE	CLASS V (2) 85% TOE	TOTALS (Rounded) (3) 100% TOE	TOTALS (Rounded) (3) 85% TOE
17 Indep Engr Regt	3.8	3.2	8.4	7.1	1.0	0.9	1.0	1.0	14	12
18 BD/M15 Div	16.4	13.9	12.8	10.9	1.4	1.2	15.0	13.0	46	39
19 Indep Mtr Transp Regt	2.9	2.5	1.0	0.9	24.1	20.5	-	-	28	24

(1) Class III daily supply requirements in combat were computed for each gasoline-fueled vehicle at a basic displacement of 30 miles per day plus a series of modifying factors. Combat requirements for diesel-fueled vehicles were based on estimates for Soviet Army diesel-fueled vehicle consumption rates--20 gallons of diesel oil per vehicle per day--and the factor of 243 gallons per short ton (packing included).

(2) Figures listed in this column are average supply requirements for all types of combat. For more specific information concerning ammunition expenditures under varying conditions of combat consult Annex IIB.

(3) All daily supply requirements are computed on an annual basis under varying conditions of combat except in the case of airborne units. Airborne unit figures are based on requirements during time committed with ammunition expenditures at rate of fifty percent of basis load daily

DAILY AMMUNITION REQUIREMENTS OF SELECTED CCA UNITS (U)

(IN SHORT TONS*)

UNIT	Basic Load		Heavy Combat		Moderate Combat		Light Combat		Avg Daily Rqmt	
	100%	85%	100%	85%	100%	85%	100%	85%	100%	85%
Army Hq and troops, less Army Arty Regt	22	19	13	11	8	7	2	2	3	3
Army Arty Regt	134	114	80	68	47	40	13	11	20	17
Inf Div (Standard)	319	271	191	162	112	95	32	27	48	41
Inf Div (Light)	234	199	140	119	82	70	23	20	35	30
Armored Div	928	789	557	473	325	276	93	79	139	118
AT Div	140	119	84	71	49	42	14	12	21	18
Arty Div (How)	456	388	274	233	160	136	46	39	68	58
Arty Div (Gun)	537	456	322	274	188	160	54	46	81	69
AAA Div	170	145	102	87	60	51	17	14	26	22

* Figures rounded to nearest ton.

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